

Colorfast & insect-free

TECHNIQUE

A method of preserving algae for herbarium collections

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ALGAL SPECIMENS for herbarium collections are commonly prepared by floating a fresh specimen onto a small piece of drawing paper, draining off excess water, and pressing the specimen until the plant is completely dry. Unfortunately, specimens processed in this manner are subject to damage from handling and from insects. Also, with customary preservation methods, most of the natural color of the algae is lost.

Dawson [1956] used gummed tape to attach specimens of algae that would not adhere to drawing paper. Taylor [1960] used liquid glue that prevented displacement of the algal segments — but caused disfigurement of the plant. He concluded that, as of that date, no plastic had appeared on the market that would remain clear through the years or prevent distortion and disfigurement of algal specimens. Still later, Wagstaffe and Havelock [1962] tried a plastic solution to attach plant stems to drawing paper. And commercial display specimens that retain some of their color are prepared by placing a clear plastic sheet over the dried specimen and sealing the edges [Anonymous, 1969].

During a study in which algal specimens from the Florida coast were collected, an inexpensive method was developed for successful preservation for herbarium collections. Blue-Bird brand glue was applied to strengthen plant structure and seal off the specimen from

exposure to external elements.* The glue is a white liquid that becomes colorless and hard when dry. The entire specimen was flattened and dried in the customary manner prior to being covered with a thin coat of the glue with a small watercolor brush. After 30 minutes — or when the glue became hard and colorless — an additional coat of glue was applied to completely cover the thicker areas of the specimen.

A collection of 40 marine algal species representing four classes of algae — namely, Rhodophyceae, Phaeophyceae, Chlorophyceae, and Cyanophyceae — was prepared 12 years ago. This collection was kept in my office for five years, then placed on public display, where it has been subjected to fluorescent lighting and extensive handling. During this period, the algal specimens have not been damaged by insects, nor have they lost their original form — or color.

*Trade names referred to in this paper do not imply endorsement of commercial products. Although Blue-Bird was the material utilized, most commercial all-purpose glues will probably be as satisfactory. For example, you can substitute Elmer's Glue-All, DuPont's all-purpose glue, U.S. Plywood's white glue or Lepage's white "school" glue in the procedure above.

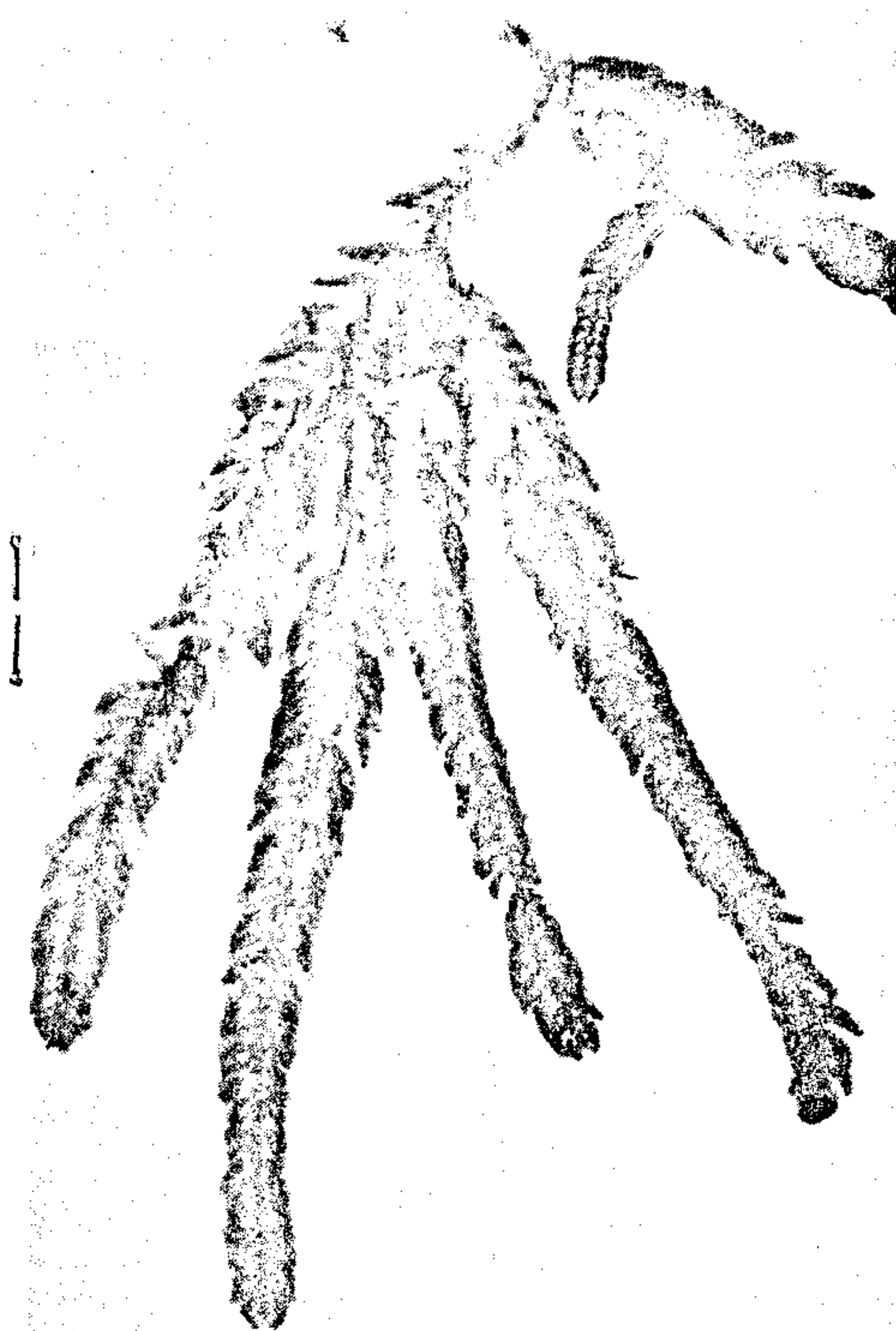
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PHOTOGRAPHS (THE ORIGINALS IN COLOR) BY D. PATLAN

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